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	OTHER DOC	UMENTS (including Author, Title, Date, Pe	ertinent pages.	etc.)	<u>-</u>			
T	Bacon et al. "The Effe	cts of Bioch	emical Mutation on the Virulence	of Bacterium Ty	phosum: Th	e Virule	nce of		
ļ	Mutants", Br. J. Exp. F	athol. 31:7	14-724 (1950)						
	Chatfield et al, "Use of	f The nirB F	Promoter to Direct the Stable Expr	ession of Hetero	logous Anti	gens in			
		ine Strains:	Development of a Single-Dose O	ral Tetanus Vac	cine", Bio/Te	echnolog	3 y		
	10:888-892 (1992)			 		- 4145			
1	Curtiss III et al, Salmo	nella typhir	nurium Deletion Mutants Lacking	Adenylate Cycla	se and Cycl	IC AMP			
	Receptor Protein Are	Avirulent ar	nd Immunogenic", Infection and Im	munity 55(12):3	U35-3043 ((1987)	o in Tw		
ŀ	Dougan et al, "Construction and Characterization of Vaccine Strains of Salmonella Harboring Mutations in Tw Difference aro Genes". The Journal of Infectious Diseases 158(6):1329-1335 (1988)								
	Enimosther et al. "Or	. The Jour	on of Mice against Tetanus by Us	e of a Live Atten	uated Salmi	onella C	arrier"		
	Fairweather et al, "Oral Vaccination of Mice against Tetanus by Use of a Live Attenuated Salmonella Carrier", Infection and Immunity 58(5):1323-1326 (1990)								
	Gomez-Duarte et al, "Expression of fragment C of tetanus toxin fused to a carboxyl-terminal fragment of								
	Gomez-Duarte et al. "	expression	diptheria toxin in Salmonella typhi CVD 908 vaccine strain", Vaccine 13(16):1596-1602 (1995)						
	Gomez-Duarte et al, "	expression nonella tvph	i CVD 908 vaccine strain", Vaccin	e 13(16):1596-1	602 (1995)		- '		
	Gomez-Duarte et al, " diptheria toxin in Salm	nonella typh	i CVD 908 vaccine strain", Vaccin phoPlphoQ-deleted, aroA-deleted	ie 13(16):1596-1	602 (1995)				
	Gomez-Duarte et al, " diptheria toxin in Salm Hohmann et al, "Evalu human volunteers", Va	nonella typh uation of a p accine 14(1	phoPlphoQ-deleted, aroA-deleted):19-24 (1996)	e 13(16):1596-1 live oral Salmon	602 (1995) ella typhi va	ccine st			
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